CLAIM(S)

1. Process for generating shock waves for medical uses in which two electrodes are mounted in a liquid medium and an electrical breakdown is generated by a high electrical voltage applied to the electrodes, as a result of which breakdown the medium is vaporized in an explosive manner to generate shock waves, characterized in that a catalyst is added to the liquid medium at least in the area surrounding the electrodes, which catalyst partially or completely suppresses the electrolytic formation of gas during the application of the high voltage to the electrodes and which partially or completely catalytically converts the gas formed upon application of the high voltage to the electrodes and during the electrical breakdown back to its original state.

2. Device for generating shock waves for medical uses by means of a spark gap formed between two electrodes mounted in a liquid medium, characterized in that the liquid medium (6) contains a catalyst (9) at least in the area surrounding the electrodes (4, 5), which catalyst at least partially suppresses the conversion of the liquid medium (6) into gas and/or converts the gas which forms at least partially back to the liquid state.

3. Device according to Claim 2, characterized in that the liquid medium (6) consists essentially of water, and in that the catalyst (9) is a hydrogenation catalyst.

4. Device according to Claim 3, characterized in that a catalyst (9) selected from the group of the platinum or palladium metals is used.

5. Device according to Claim 4, characterized in that the catalyst (9) consists of platinum on active carbon, platinum powder, platinum sponge, or platinum black.

6. Device according to Claim 4, characterized in that the catalyst (9)

consists of palladium on active carbon, palladium powder, palladium sponge, or palladium black.

7. Device according to one of Claims 2-6, characterized in that the catalyst (9) is added to the liquid medium (6) in an amount of at least 0.1 mg/mL.

8. Device according to Claim 7, characterized in that the catalyst (9) is added to the liquid medium (6) in an amount of 0.2-4 mg/mL.

9. Device according to one of Claims 2-8, characterized in that the liquid medium (6) surrounding the electrodes (4, 5) is held in a closed volume (sleeve 7).

10. Device according to one of Claims 2-8, characterized in that the catalyst (9) is stored as a powder in a supply container (11) and escapes through an opening in the supply container (11) into the liquid medium (6) in the area of the electrodes (4, 5).